



Contact element, Screw terminals, Base fixing, 1 NC, 24 V 3 A, 220 V 230 V 240 V 6 A

Part no.

Catalog No.

Alternate Catalog No.

EL-Nummer (Norway)


M22-KC01

216382



M22-KC01Q

4355366

Delivery program

|                            |  |                                                                                     |
|----------------------------|--|-------------------------------------------------------------------------------------|
| Basic function accessories |  | Contact elements                                                                    |
| Connection technique       |  | Screw terminals                                                                     |
| Fixing                     |  | Base fixing                                                                         |
| Degree of Protection       |  | IP20                                                                                |
| Connection to SmartWire-DT |  | no                                                                                  |
| Approval                   |  |  |

Contacts

|                       |  |                                                                                                                                                |
|-----------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------|
| N/C = Normally closed |  | 1 NC                                                        |
| Notes                 |  |  = safety function, by positive opening to IEC/EN 60947-5-1 |


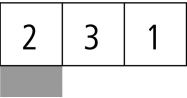
Actuator travel and actuation force as per DIN EN 60947-5-1, K.5.4.1

|                                    |    |     |
|------------------------------------|----|-----|
|                                    | mm | 4.8 |
| Maximum travel                     | mm | 5.7 |
| Minimum force for positive opening | N  | 15  |

Contact sequence



## Contact travel diagram, stroke in connection with front element

|                                |  |  |                                                                                    |
|--------------------------------|--|--|------------------------------------------------------------------------------------|
| Contact diagram                |  |  |  |
| Configuration                  |  |  |  |
| Connection type                |  |  | Single contact                                                                     |
| Connection technique           |  |  | Screw terminals                                                                    |
| <b>Notes</b>                   |  |  |                                                                                    |
| Up to 3 off per enclosure base |  |  |                                                                                    |

## Technical data

### General

|                                                                                     |              |                 |                                                                                |
|-------------------------------------------------------------------------------------|--------------|-----------------|--------------------------------------------------------------------------------|
| Standards                                                                           |              |                 | IEC 60947-5-1                                                                  |
| Lifespan, mechanical                                                                | Operations   | $\times 10^6$   | > 5                                                                            |
| Operating frequency                                                                 | Operations/h |                 | $\leq 3600$                                                                    |
| Actuating force                                                                     |              | n               | $\leq 5$                                                                       |
| Operating torque (screw terminals)                                                  |              | Nm              | $\leq 0.8$                                                                     |
| Degree of Protection                                                                |              |                 | IP20                                                                           |
| Climatic proofing                                                                   |              |                 | Damp heat, constant, to IEC 60068-2-78<br>Damp heat, cyclic, to IEC 60068-2-30 |
| Ambient temperature                                                                 |              |                 |                                                                                |
| Open                                                                                |              | °C              | -25 - +70                                                                      |
| Mechanical shock resistance to IEC 60068-2-27 Shock duration 11 ms, half-sinusoidal |              | g               | > 30                                                                           |
| Terminal capacities                                                                 |              | mm <sup>2</sup> |                                                                                |
| Solid                                                                               |              | mm <sup>2</sup> | 0.75 - 2.5                                                                     |
| Stranded                                                                            |              | mm <sup>2</sup> | 0.5 - 2.5                                                                      |
| Flexible with ferrule                                                               |              | mm <sup>2</sup> | 0.5 - 1.5                                                                      |

### Contacts

|                                       |           |                   |                                                                     |
|---------------------------------------|-----------|-------------------|---------------------------------------------------------------------|
| Rated impulse withstand voltage       | $U_{imp}$ | V AC              | 6000                                                                |
| Rated insulation voltage              | $U_i$     | V                 | 500                                                                 |
| Overvoltage category/pollution degree |           |                   | III/3                                                               |
| Control circuit reliability           |           |                   |                                                                     |
| at 24 V DC/5 mA                       | $H_F$     | Fault probability | $< 10^{-7}$ (i.e. 1 failure to $10^7$ operations)                   |
| at 5 V DC/1 mA                        | $H_F$     | Fault probability | $< 5 \times 10^{-6}$ (i.e. 1 failure in $5 \times 10^6$ operations) |
| Max. short-circuit protective device  |           |                   |                                                                     |
| Fuseless                              |           | Type              | PKZM0-10/FAZ-B6/1                                                   |
| Fuse                                  | gG/gL     | A                 | 10                                                                  |

### Switching capacity

|                           |       |   |     |
|---------------------------|-------|---|-----|
| Rated operational current | $I_e$ | A |     |
| AC-15                     |       |   |     |
| 115 V                     | $I_e$ | A | 6   |
| 220 V 230 V 240 V         | $I_e$ | A | 6   |
| 380 V 400 V 415 V         | $I_e$ | A | 4   |
| 500 V                     | $I_e$ | A | 2   |
| DC-13                     |       |   |     |
| 24 V                      | $I_e$ | A | 3   |
| 42 V                      | $I_e$ | A | 1.7 |
| 60 V                      | $I_e$ | A | 1.2 |
| 110 V                     | $I_e$ | A | 0.6 |
| 220 V                     | $I_e$ | A | 0.3 |

|                                         |                |                   |     |
|-----------------------------------------|----------------|-------------------|-----|
| Lifespan, electrical                    |                |                   |     |
| AC-15                                   |                |                   |     |
| 230 V/0.5 A                             | Operations     | x 10 <sup>6</sup> | 1.6 |
| 230 V/1.0 A                             | Operations     | x 10 <sup>6</sup> | 1   |
| 230 V/3.0 A                             | Operations     | x 10 <sup>6</sup> | 0.7 |
| DV-13                                   |                |                   |     |
| 12 V/2.8 A                              | Operations     | x 10 <sup>6</sup> | 1.2 |
| <b>Auxiliary contacts</b>               |                |                   |     |
| Rated conditional short-circuit current | I <sub>q</sub> | kA                | 1   |

## Design verification as per IEC/EN 61439

|                                                                                                                        |                   |    |                                                                                                                                  |
|------------------------------------------------------------------------------------------------------------------------|-------------------|----|----------------------------------------------------------------------------------------------------------------------------------|
| Technical data for design verification                                                                                 |                   |    |                                                                                                                                  |
| Rated operational current for specified heat dissipation                                                               | I <sub>n</sub>    | A  | 6                                                                                                                                |
| Heat dissipation per pole, current-dependent                                                                           | P <sub>vid</sub>  | W  | 0.11                                                                                                                             |
| Equipment heat dissipation, current-dependent                                                                          | P <sub>vid</sub>  | W  | 0                                                                                                                                |
| Static heat dissipation, non-current-dependent                                                                         | P <sub>vs</sub>   | W  | 0                                                                                                                                |
| Heat dissipation capacity                                                                                              | P <sub>diss</sub> | W  | 0                                                                                                                                |
| Operating ambient temperature min.                                                                                     |                   | °C | -25                                                                                                                              |
| Operating ambient temperature max.                                                                                     |                   | °C | 70                                                                                                                               |
| IEC/EN 61439 design verification                                                                                       |                   |    |                                                                                                                                  |
| 10.2 Strength of materials and parts                                                                                   |                   |    |                                                                                                                                  |
| 10.2.2 Corrosion resistance                                                                                            |                   |    | Meets the product standard's requirements.                                                                                       |
| 10.2.3.1 Verification of thermal stability of enclosures                                                               |                   |    | Meets the product standard's requirements.                                                                                       |
| 10.2.3.2 Verification of resistance of insulating materials to normal heat                                             |                   |    | Meets the product standard's requirements.                                                                                       |
| 10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects |                   |    | Meets the product standard's requirements.                                                                                       |
| 10.2.4 Resistance to ultra-violet (UV) radiation                                                                       |                   |    | Meets the product standard's requirements.                                                                                       |
| 10.2.5 Lifting                                                                                                         |                   |    | Does not apply, since the entire switchgear needs to be evaluated.                                                               |
| 10.2.6 Mechanical impact                                                                                               |                   |    | Does not apply, since the entire switchgear needs to be evaluated.                                                               |
| 10.2.7 Inscriptions                                                                                                    |                   |    | Meets the product standard's requirements.                                                                                       |
| 10.3 Degree of protection of ASSEMBLIES                                                                                |                   |    | Does not apply, since the entire switchgear needs to be evaluated.                                                               |
| 10.4 Clearances and creepage distances                                                                                 |                   |    | Meets the product standard's requirements.                                                                                       |
| 10.5 Protection against electric shock                                                                                 |                   |    | Does not apply, since the entire switchgear needs to be evaluated.                                                               |
| 10.6 Incorporation of switching devices and components                                                                 |                   |    | Does not apply, since the entire switchgear needs to be evaluated.                                                               |
| 10.7 Internal electrical circuits and connections                                                                      |                   |    | Is the panel builder's responsibility.                                                                                           |
| 10.8 Connections for external conductors                                                                               |                   |    | Is the panel builder's responsibility.                                                                                           |
| 10.9 Insulation properties                                                                                             |                   |    |                                                                                                                                  |
| 10.9.2 Power-frequency electric strength                                                                               |                   |    | Is the panel builder's responsibility.                                                                                           |
| 10.9.3 Impulse withstand voltage                                                                                       |                   |    | Is the panel builder's responsibility.                                                                                           |
| 10.9.4 Testing of enclosures made of insulating material                                                               |                   |    | Is the panel builder's responsibility.                                                                                           |
| 10.10 Temperature rise                                                                                                 |                   |    | The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices. |
| 10.11 Short-circuit rating                                                                                             |                   |    | Is the panel builder's responsibility. The specifications for the switchgear must be observed.                                   |
| 10.12 Electromagnetic compatibility                                                                                    |                   |    | Is the panel builder's responsibility. The specifications for the switchgear must be observed.                                   |
| 10.13 Mechanical function                                                                                              |                   |    | The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.                         |

## Technical data ETIM 7.0

|                                                                                                                                                                                                                |  |  |   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|---|
| Low-voltage industrial components (EG000017) / Auxiliary contact block (EC000041)                                                                                                                              |  |  |   |
| Electric engineering, automation, process control engineering / Low-voltage switch technology / Component for low-voltage switching technology / Auxiliary switch block (ecI@ss10.0.1-27-37-13-02 [AKN342013]) |  |  |   |
| Number of contacts as change-over contact                                                                                                                                                                      |  |  | 0 |
| Number of contacts as normally open contact                                                                                                                                                                    |  |  | 0 |
| Number of contacts as normally closed contact                                                                                                                                                                  |  |  | 1 |
| Number of fault-signal switches                                                                                                                                                                                |  |  | 0 |

|                                            |   |                  |
|--------------------------------------------|---|------------------|
| Rated operation current Ie at AC-15, 230 V | A | 6                |
| Type of electric connection                |   | Screw connection |
| Model                                      |   | Top mounting     |
| Mounting method                            |   | Floor fastening  |
| Lamp holder                                |   | None             |

### Approvals

|                             |  |                                                                              |
|-----------------------------|--|------------------------------------------------------------------------------|
| Product Standards           |  | IEC/EN 60947-5; UL 508; CSA-C22.2 No. 14-05; CSA-C22.2 No. 94-91; CE marking |
| UL File No.                 |  | E29184                                                                       |
| UL Category Control No.     |  | NKCR                                                                         |
| CSA File No.                |  | 012528                                                                       |
| CSA Class No.               |  | 3211-03                                                                      |
| North America Certification |  | UL listed, CSA certified                                                     |
| Degree of Protection        |  | UL/CSA Type: -                                                               |

### Dimensions

